Maternal Depression and Autobiographical Memory in Mothers and Their Children

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ABSTRACT

Autobiographical memory (AM), the capacity of retrieving personally experienced events, develops throughout childhood. Memory specificity increases with age and overgeneralized AM is significantly associated with onset of psychological disorders. The way mothers talk about shared past experiences, known as maternal reminiscing style, even at young ages, has been shown to predict the specificity of AM in children. The current study examines the influence of depression on AM and reminiscing style in mothers and how these factors influence AM specificity in young children. Participants included 82 mothers (49 depressed) and their children (45 girls); the mean age of children was 3.24 years (SD = 0.21). Trained staff coded AM specificity using videos of the participants according to the Autobiographical Memory Test (AMT). Reminiscing quality of the participants was measured by the Autobiographical and Emotional Events Dialogues (AEED) coding manual. Maternal depressive symptoms were assessed by the Center for Epidemiological Studies Depression Scale. Based on the 82 pairs coded, maternal depressive symptoms was negatively correlated with maternal reminiscing quality ($r = -.25$, $p = .02$) but unrelated to AM specificity. Child specificity scores were positively associated with maternal reminiscing quality ($r = .49$, $p < .001$) and AM specificity ($r = .68$, $p < .001$). It was also seen that maternal reminiscing quality ($\beta = .45$, $p < .01$) and maternal AM specificity ($\beta = .57$, $p < .01$) predict child AM specificity, but maternal depressive symptoms were not predictive of child AM specificity ($\beta = -.01$, $p = .932$). Lastly, there was a significant interaction for maternal reminiscing quality and child gender ($p = 0.016$), in that female children's specificity was positively correlated with the reminiscing quality of the mother ($\beta = 0.454$, $p < 0.001$). Findings suggest that depression and reduced reminiscing quality in mothers impacted their children's AM and reminiscing by age 3.

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Autobiographical memory (AM) is the capacity of people to recollect personal events or facts about their life (Conway & Pleydell-Pearce, 2000). The ability to recall events and to develop a well-structured and detailed story of past experiences develops throughout childhood and develops fully by adolescence, when individuals can create a fully detailed and adequately coherent life story (Heron et al, 2012). The development of this skill allows for individuals to learn from past experiences and construct a sense of self, but only if it is functioning effectively (Conway and Pleydell-Pearce, 2000). The current study examines how mothers' depressive symptoms and their conversations with children about past emotional events are associated with children's development of autobiographical memory.

When recalling past events, depressed adults show a pattern of overgeneralized autobiographical memory compared to healthy individuals who are more specific (Vreeswijk & de Wilde, 2004). Healthy adults recall specific memories that include unique occurrences that took place at a certain time/place while depressed adults tend to recall general memories that include summaries of repeated occasions or events lasting more than a day. Depressed adults are also seen to recall more categoric over general memories, categoric meaning that the memories are non-specific and are summaries of repeated occasions (Williams, 1996). In previous research by Lievaart and colleagues, over-general autobiographical memory was related with the diagnosis of depression in adults, yet it remained unrelated to the severity of the depression (Lievaart, et. al, 2013). The strength of the relationship between specific memories and depressive symptoms increased with age and shorter length of follow-up. The predictive relationship was also stronger for clinically depressed participants, compared to participants with a nonclinical diagnosis (Sumner, Griffith, & Mineka, 2010). Another study by Williams & Dritschel (1988) found that people who attempted suicide in the past provided more general memories, especially when the cue words were more positive. In one theory, it is said that people become over-general in their memory because specific memories contain content that is unsettling for them to revisit. Individuals truncate the search for specific memories in order to avoid the negative events (Williams et al., 2007).

Present research on autobiographical memory and depression has mostly focused on adults, due to the clinical relevance. A study by Vrielynck (2007) showed that children, ages 9 to 13, with depressive

disorders exhibit an over general autobiographical memory. It is also seen that children who experience trauma have an over-general autobiographical memory (Henderson et al., 2002). Further research has been conducted to show that children with over general autobiographical memory, specifically in the presence of negative cues, have an increased risk for depression in adolescence (Rawal & Rice, 2012). Although some research has focused on the overgeneralized autobiographical memory of adolescents and children, very little has been done regarding pre-school aged children. Children are able to retrieve/report memories at the age of 3, so autobiographical memory can be studied at a very early age (Fivush and Nelson, 2004). Children at a pre-school age are also more likely to manifest behavioral or psychological issues, due to the stress of entering schooling, being exposed to new people and starting to be apart from parents for periods of time. Children at this age are also expected to show increased social competence and self-regulation, so the presence of psychological abnormalities may occur (Ahnert, Gunnar, Lamb, & Barthel, 2004). Valentino and colleagues (2014) conducted research by using a specificity scale (AMT scale) of memories among children from 4 to 6 years old. Researchers found that specificity of memory does increase with age and it is therefore important to examine the effect overgeneralized autobiographical memory has on the onset of psychological disorders. Research by Valentino (2011) supports these claims, stating that that autobiographical memory is looked at as being developmental and psychopathology is an outcome of atypical development. A study by Vrielynck and colleagues (2007) showed that children, years 9 to 13, with a depressive disorder recalled significantly fewer specific memories, and this association remained significant after the effect of IQ on the presence of overgeneralized memories is controlled. Drummond and colleagues tried to explain the differences in autobiographical memory among children. The results of their study suggested that greater specificity is at first associated with greater affective disturbance, and that specificity decreases more as the search process is cut short, since psychopathology becomes more severe.

The current study investigates mothers' influence on children's autobiographical memory by examining conversations between the mother and child about emotional events in the past. This can be measured using autobiographical memory specificity and reminiscing quality. Memory specificity is a variable that has been related to depression and other forms of psychopathology. This construct refers to

the ability to recall a specific time and event when recalling a memory. A lack of specificity in autobiographical memory has been associated with borderline personality disorder and is even related to deficiencies in problem solving ability in social situations (Maurex, et. al, 2010). Another construct, reminiscing quality, is a factor that might influence how children develop autobiographical memory. Reminiscing quality is defined as the coherence of a narrative and the guidance given to create the narrative, excluding elaborative quantity (Koren-Karie, et. al, 2003). Maternal elaborative quality has been associated with child autobiographical memory, and was found to be associated with the quality of attachment in children rather than the expression and emotional support of the mother. Insecurely attached children tended to have mothers with more elaborative and evaluative reminiscing quality (Larkina, 2010).

Due to the fact that overgeneralized memory is linked to depression in both children and adults, more research must be done in regards to mother-child interaction and the effect that maternal depression has on children's memory. The developmental psychopathology model of overgeneralized memory states that differences among people in maternal reminiscing style may predict overgeneralized memory and autobiographical memory specificity in children, which may be a predictor of psychopathology in adulthood (Fivush & Nelson, 2004). Valentino and colleagues (2014) continued research on this topic, demonstrating that elaborative quality was associated with children's memory specificity and elaborative quantity was not. The amount that memories repeated, rehearsed, or elaborated was not related children's ability to retrieve specific autobiographical memories. Instead, the mother's ability to help her child understand their past emotional experiences in a sensitive, supportive, and coherent way has a stronger association with children's memory specificity. The act of helping the child form coherent memories about the past and helping them to make sense of that has a strong effect on the specificity of elaborated memories, so comparing the quality of an interaction between a mother and child may be important in understanding this concept. Studying the mother's, instead of the father's, role in parenting is particularly important, since maternal parenting outcomes are linked to depression, due to insufficient modeling (Cohn, et. al, 1990).

In the current study, we seek to answer two research questions: Are maternal depressive symptoms associated with their AM specificity and reminiscing quality with children? Are maternal depressive symptoms, specificity of memory, and reminiscing style associated with preschool-age children's AM specificity? Concordant with the research done by Vrielynck and colleagues (2007), we hypothesized that mothers with depressive symptoms would have less specific memories and lower reminiscing quality when discussing emotional events. Furthermore, the children of mothers with over general autobiographical memory would show more general autobiographical memory qualities, based on the findings by Valentino and colleagues (2013).

METHOD

Participants

Participants included 82 mother-child dyads, drawn from a larger longitudinal study on children's regulation of emotion and maternal depression. The participants were recruited in Columbus, Ohio through online posts to Craigslist, flyers sent to mental health clinics, daycare centers and local communities, and advertisements in newspapers and parenting magazines. To be eligible for the larger study, mother's needed to be 21 years of age or older and have a biological child between 3-3.5 years of age. Children with developmental disorders/delays were excluded and mothers with any history of mental illness other than depressive symptoms were excluded. For the current study 82 mother-child dyads were included; mothers had a mean age of 31.24 (SD = 5.97) and their children with a mean age of 3.24 years (SD = 0.21). Based on the Center for Epidemiological Studies Depression Scale (CESD; Radloff, 1977) to measure maternal depressive symptoms, 59.8% (49) of the mothers had depression scores above the clinical cutoff. Of the 82 children, 54.9% (45) were female, while 45.1% (37) were male. Maternal race was recorded, with 65.9% (54) European American, 29.3% (24) African American, 6.1% (5) American Indian or Alaskan Native, and 1.2% (1) Asian American. In regards to education level, 14.6% (12) of mothers had a high school diploma or lower, specialized training, or an associate's degree, 25.6% (21) had a bachelor's degree, and 22.0% (18) had a graduate degree. Annual household income of the families were reported as 57.4% (47) having less than $50,000, 35.4% (29) having between $50,000 and $100,000, and 7.4% (6) having over $100,000. Furthermore, 70.7% (58) of mothers were married or

living with someone, 13.4% (11) were separated, divorced, or widowed, and 15.9% (13) of mothers had never been married or were single.

Procedure

Mother-child dyads participated in a laboratory assessment that lasted for approximately 2 hours for the larger longitudinal study. The mother and child participated in a series of observational tasks. In the current study, only the mother-child emotion discussion task was included. Mothers and children discussed memories of past events that were associated with certain emotions (Wang, 2004). The research assistant instructed the mother to write down 4 events, each of which were instances where the child might have felt fear, anger, sadness or happiness. The events that she recalled were placed in a randomized order. The mother was instructed to talk with her child about the emotional events one by one, and the conversations were videotaped. This specific task lasted for approximately 10 minutes and the recordings were transcribed and coded later.

Measures

These mother-child conversations during the emotion discussion task were coded for reminiscing quality, using the Autobiographical Emotional Events Dialogue (AEED; Koren-Karie, et. al, 2003) coding manual; the reminiscing quality of the mother and child was coded separately.

Reminiscing Style. The dialogues are assessed to understand whether the interactions were *emotionally matched* (i.e., the coherence of the dyad's conversations), adequate (content does not contradict emotion) and coherent (overall quality of the interaction). The mother and child are coded separately during the interaction for:

1. *Shift of focus*- focuses on the partner's ability to remain focused on the task. The lowest score is a "1", meaning that the mother is more focused on her own emotions and feelings in instead of her child's. A low score for the child entails that the child discusses details that are not related to the emotion or task at hand. Maximal focus, coded as a "9", shows no shifts to irrelevant details and no repetitions are exhibited.

2. *Acceptance and tolerance*- looks at the acceptance and tolerance that the mother and child show each other during the conversation. A score of "1" shows repeated rejection, disappointment, or

derogation while the partner contributes to the dialogue. The partner may not promote free flow of the conversation and long periods of silence may be seen. A high score of a "9" shows that the partners feel comfortable enough to express themselves. While interruptions may occur, they are only due to high involvement in the task

3. *Involvement and reciprocity*- refers to the mother and child sharing a common goal in the task, cooperating to complete the task as a team. High scores (9) in this category are seen as a high involvement, cooperation and contributions in order to create four separate emotion stories. Teamwork is exhibited in that both partners are involved in the production of the story. A low score, "1", is coded if one member of the conversation is telling the story independently and the other is uninvolved. They are dealing separately with the task and do not share a common goal during the task.

4. *Resolution/closure of negative feelings*- refers to the manner in which the mother and child end their conversations on anger, fear or sadness. A score of "1" means that the partners struggle to end the story with a positive resolution. They tend to emphasize and exaggerate the negative aspects of the story. A high score of a "9" means that the partners are able to add closure and positivity at the end of the discussion about a negative emotion. It may highlight the child's strengths and ability to overcome adversity.

5. *Structuring/elaboration*- Mothers are coded for structuring ability and children are coded for quality/amount of elaboration. A low score is seen as the mother getting carried away during elaboration, adding too many details and taking over the interaction. It can also be seen as a complete lack of structuring where the child must complete the task on his/her own. A high score is seen as the mother aiding the child to create four matched stories that are rich in detail and coherent. A low score for child elaboration is categorized as the child either not adding anything to the stories, saying only "I don't know", "I want to leave", etc. or only labeling events/objects for each emotion. Too much elaboration and getting carried away with the story may also receive a low score. A high score is seen as optimal elaboration, where the child creates four fully elaborated stories with no drifting to irrelevant details or repeating information.

Maternal AM specificity. The mothers are also coded for specificity using the Autobiographical Memory Task (AMT) Coding Manual (Williams & Dritschel, 1992). Anger, sadness, happiness and fear, stories were coded separately during the interaction, and the categories are mutually exclusive.

1. *Specific*- memory discussed had happened at a particular place and time, and its time span was less than one day.

2. Generic-extended- memory is not a specific event that occurred for less than 24 hours. It is categorized as an event time line, which may include numerous events during a period of more than one day. It may have a specific start and end point to the story.

3. Generic-categoric-refers to a category of events, containing many specific episodes. These memories may start with the words "whenever" or "usually".

4. Omission- production of a memory that does not fall into a category. This may include a current event or an ongoing event. This can also be coded if the person adds details, but falls short of giving a specific memory.

5. Semantic association- this is coded if the mother describes an association to the emotion, but not a specific memory. For example, the mother may describe things that make the child happy, such as "the dog" and "grandma" instead of "when we played with the dog yesterday afternoon" or "when we went to the playground with grandma last week".

6. Missing- this is coded if the coder cannot understand the mother or the emotion dialogue is missing altogether.

Child AM specificity. The child was coded for AM specificity and emotion word use, based on a coding manual adapted from Wang (2004). Mother-child conversations on different emotions (i.e., anger, fear, sadness and happiness) were coded separately.

Child AM specificity was either coded as specific (1), or general (0). Specific memory refers to the memory of events that happened at a particular point in time, or memory of distinct aspects of the past events (e.g., "We went apple-picking), while general memory refers to the memory of events occurred regularly or on multiple occasions, or generic information relevant to the topic by not directly about what happened in the past event.

Emotional word use is coded by tracking the frequency of emotion words, such as "happy", "afraid", "upset", and "cried". The number of congruent and incongruent emotional words are tallied for each emotion topic. Congruent words describe emotional words that match the emotion topic (happy, sad, angry, or scared) and incongruent words describe emotion words that do not match the emotion topic.

Maternal Depressive Symptoms. The maternal depressive symptoms were measure by the Beck Depression Inventory 2nd Edition (1996). The scale is a 21 item self-report tool that measures the severity of depression in adolescents and adults, with scores that range from 0 to 63. Each question is scored on a 4 point, Likert type scale of 0 to 3.

Data Analyses

Descriptive statistics, means and standard deviations, were computed to summarize the distribution of the variables. Bivariate correlations of the maternal variables were computed to understand the associations among these variables. Hierarchical regression analyses were conducted to address the second research question: Are maternal depressive symptoms, specificity of memory, and reminiscing style associated with preschool-age children's AM specificity? In this analysis, independent variables were entered in the analysis in three steps. In the first step, how maternal depressive symptoms predicted child AM specificity were tested. Next, maternal reminiscing quality and maternal AM specificity were entered to see how the variables predict child AM specificity. Lastly, child's sex and the interaction between child sex and maternal AM specificity were entered in the analysis to test the moderation effect of child gender on the association between maternal reminiscing quality and child AM specificity.

RESULTS

Bivariate correlations, standard deviations and means were first obtained to draw some conclusions about some of the research variable associations. Many of the correlations were significant ($p < .01$), providing some information about the relationships of the independent variables (Table 1) with the outcomes. Maternal depressive symptoms was negatively correlated with maternal reminiscing quality ($r = -.25$, $p = .02$) but unrelated to AM specificity. Maternal AM specificity was positively correlated with maternal reminiscing quality ($r = .36$, $p < .01$). Child specificity scores were positively associated with

maternal reminiscing quality (r = .49, $p < .001$) and AM specificity (r = .68, $p < .001$). The hierarchical regression analysis was completed in three separate steps (Table 2). It was seen that maternal reminiscing quality ($\beta = .45$, $p < .01$) and maternal AM specificity ($\beta = .57$, $p < .01$) predicted child AM specificity, but maternal depressive symptoms were not predictive of child AM specificity ($\beta = -.01$, $p = .93$). Next, differences were seen between male and female children in AM specificity scores, in that males scored higher than females ($\beta = 1.10$, $p = .02$). Lastly, child's sex was used as a moderator with maternal specificity and maternal reminiscing quality. There was a significant interaction for maternal reminiscing quality and child gender ($p = .016$), in that female children's specificity was positively correlated with the reminiscing quality of the mother ($\beta = 0.454$, $p < .001$; Figure 1).

DISCUSSION

The goal of the present study was to examine the association of maternal depressive symptoms with mothers' and their children's autobiographical memory. First, research focused on whether maternal depressive symptoms were associated with their AM specificity and reminiscing quality with children. Second, research focused on whether maternal depressive symptoms, specificity of memory, and reminiscing style are associated with preschool-age children's AM specificity.

With regards to the first focus of this research, it was expected that maternal depressive symptoms would be negatively correlated with both maternal reminiscing quality and maternal AM specificity. It was seen that maternal depressive symptoms were negatively correlated with maternal reminiscing quality, but was unrelated to maternal AM specificity. This was discordant with previous meta-analysis (Vreeswijk & de Wilde, 2004) relating depression to over-general and non-specific autobiographical memory in adults. Participants were drawn from various studies to conclude that psychiatric patients and depressed participants show over-general autobiographical memory. Another possibility that the current study did not find the association between maternal depressive symptoms and AM specificity reported by previous studies is that a different AM task was used. Many previous studies measured the specificity of memories using the standard AM test which requests that participants retrieve memories based on positive or negative cue words, and were only given a minute to respond. Responses

were then labelled as specific or general based on whether the memory took place at a particular time and place that lasted shorter than a day. The standard task accompanied by the AMT coding manual used to score our interactions was not used in our study. The original manual was used to code 30-60 second interactions and 16 cue words were used to illicit the memory (Williams & Dritschel, 1992). This cue word methodology was adapted from a study by Williams and Broadbent (1986). In comparison, this study required that mothers transcribe ideas about happy, fearful, angry or sad events before the discussion and the mothers were to lead the emotion discussion with no real time limit on the dialogues. Future research might aim to isolate the mother and child and ask each participant to retrieve memories based on specific emotion words. A clinical sample may also improve future findings, since most research relating depression and over-general autobiographical memory utilized it. If the participants were clinically depressed, the findings of the study may yield more concrete results with regard to specificity. Since current participants only reported their depression based on a scale, it was difficult to separate the depressed participants based on severity of symptoms, treatment being received and specific diagnosis.

It was hypothesized that maternal reminiscing quality, AM specificity and depressive symptoms would be related to child AM specificity. Concordant with the research hypothesis, child AM specificity was positively associated with maternal reminiscing quality and maternal AM specificity. However, an association between maternal depressive symptoms and child AM specificity was not found. Few studies have examined the relation between maternal depression and child autobiographical memory; this study is one of the few that provided empirical data on this association. One possible explanation for the lack of empirical association between maternal depressive symptoms and child AM specificity might be that only children of severely depressed mothers show impairment in autobiographical memory. Another explanation might be that the relatively unstructured emotion discussion task used in the current study is not sensitive enough to capture individual differences in young children's AM specificity because 3 year old children have low levels of language skills. A meta-analysis on the autobiographical memories of depressed individuals stated that inconsistencies with findings that depressed individuals show a less specific and more over-general autobiographical memory can be accounted for partly by inconsistencies

in the parameters of the AMT coding (Liu, Li, Xiao, & Jiang, 2013). Future studies should adopt standard measures of AM developed specifically for young children who have limited language skills.

The cross sectional nature of the study is a major limitation to this research, since we were only able to look at the participants' autobiographical memory at one point in time. One reason that maternal depressive symptoms were not related to child AM specificity directly is because they could be linked through other mediation processes, such as mother-child interaction variables. In the current study mothers' reminiscing quality was found to be associated with both maternal depressive symptoms and child AM specificity. It is plausible that maternal reminiscing quality may serve as a mediating mechanism that link maternal depression and child AM specificity. However, such mediating processes cannot be formally tested in the cross sectional data. Future studies should use longitudinal study design and examine whether maternal reminiscing style and AM specificity may mediate the association between maternal depression and child AM specificity. Also, the longitudinal design would allow us to look at how autobiographical memory changes over time and when the onset of psychopathology may occur. Research by Valentino (2011) stated that psychopathology is a result of atypical development in autobiographical memory, therefore tracking the changes in memory in childhood and adolescence in the same participants over time might show more conclusive results.

This study expands the current body of research on autobiographical memory and its relation to depression, giving a better idea about the effect that maternal over-general autobiographical memory has on the autobiographical memory of the child. This study established that child AM specificity is related to the reminiscing quality and AM specificity of the mother, and girls' specificity was positively correlated with the reminiscing quality of the mother. Future research should be directed at studying in depth the effects of over general AM on the development of psychopathology. Future research should also be conducted using developmentally sensitive AM measure specifically adapted for children. Since autobiographical memory is consistently related to various forms of psychopathology, continued research could verify why this relationship exists and create a better understanding about how the development of autobiographical memory impacts children.

Table 1. Descriptive statistics and bivariate correlations

	M	SD	1	2	3	4
1. Maternal BDI	18.70	14.26				
2. Maternal reminiscing quality	27.24	5.20	-0.25*			
3. Maternal AM specificity	3.46	1.00	-0.10	0.36**		
4. Child reminiscing quality	24.67	5.38	-0.22*	0.74**	0.33**	
5. Child AM Specificity	2.94	1.18	-0.10	0.49**	0.68**	0.47**

** $p < .05$, ** $p < .01$*

Table 2. Hierarchical regression predicting child AM specificity

	Variable	B	SE B	*β*	t	p	ΔR^2	ΔF	Sig ΔF
1							0.01	0.87	0.35
	Maternal depressive symptoms	-0.01	0.01	-0.10	-0.93	0.35			
2							0.52	42.72	0.00
	Maternal depressive symptoms	0.002	0.01	0.03	0.32	0.75			
	Maternal reminiscing quality	0.07	0.02	0.29	3.40	< .001			
	Maternal AM specificity	0.68	0.10	0.57	6.90	< .001			
3							0.04	2.29	0.09
	Maternal depressive symptoms	-.001	.01	-.01	-.09	.93			
	Maternal reminiscing quality	.10	0.02	.45	4.23	< .001			
	Maternal AM specificity	.67	.14	0.57	4.97	< .001			
	Child's sex	2.59	1.05	1.10	2.47	0.02			
	Maternal reminiscing quality X Child's sex	-0.10	0.04	-1.09	-2.46	0.02			
	Maternal AM specificity X Child's sex	0.02	0.19	0.03	0.10	0.92			
	$R^2 = .53, F = 16.41, p < .001$								

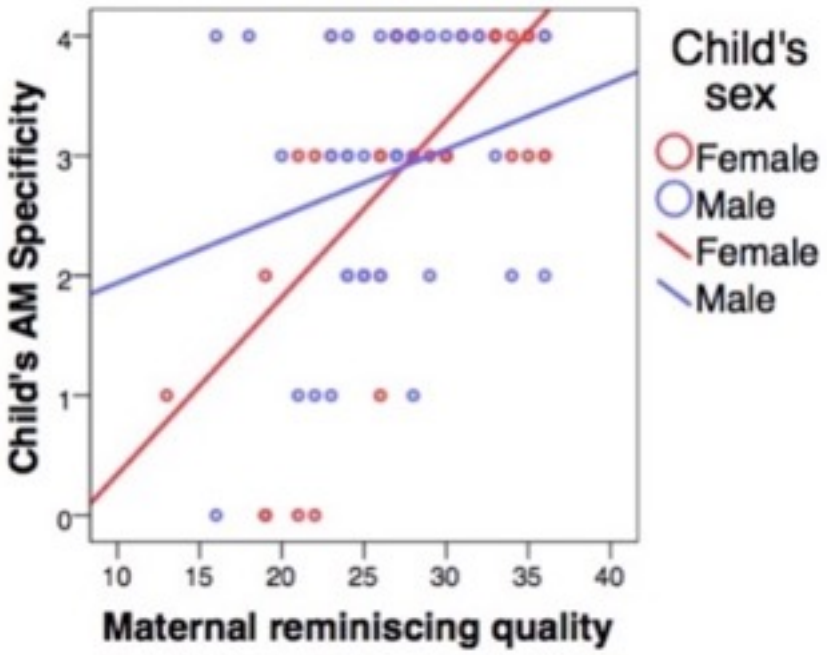

Figure 1. The moderating effect of child gender on the association between maternal reminiscing quality and child AM specificity

References

Ahnert, L., Gunnar, M. R., Lamb, M. E., & Barthel, M. (2004). Transition to Child Care: Associations With Infant-Mother Attachment, Infant Negative Emotion, and Cortisol Elevations. Child Development, 75(3), 639-650. doi:10.1111/j.1467-8624.2004.00698.x

Cohn, J. F., Campbell, S. B., Matias, R., & Hopkins, J. (1990). Face-to-Face Interactions of Postpartum Depressed and Nondepressed Mother–Infant Pairs at 2 Months. Developmental Psychology, 26(1), 15-23. doi:10.1037/0012-1649.26.1.15

Conway, M. A. (1992). Theoretical perspectives on autobiographical memory.

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The Construction of Autobiographical Memories in the Self-Memory System. *Psychological Review*. doi:10.1037/0033-295X.107.2.261

Dritschel, B. H., Williams, J. M., Baddeley, A. D., & Nimmo-Smith, I. (1992). Autobiographical fluency: A method for the study of personal memory. *Memory & Cognition*, *20*(2), 133-140. doi:10.3758/BF03197162

Evans, J., Williams, J. M., O'Loughlin, S., & Howells, K. (1992). Autobiographical memory and problem-solving strategies of parasuicide patients. *Psychological Medicine*, *22*(2), 399-405. doi:10.1017/S0033291700030348

Fivush, R., & Nelson, K. (2004). Culture and Language in the Emergence of Autobiographical Memory. *Psychological Science*. doi:10.1111/j.0956-7976.2004.00722.x

Henderson, D., Hargreaves, I., Gregory, S., & Williams, J. M. (2002). Autobiographical memory and emotion in a non-clinical sample of women with and without a reported history of childhood sexual abuse. British Journal of Clinical Psychology, 41(2), 129-142.

Heron, J., Crane, C., Gunnell, D., Lewis, G., Evans, J., & Williams, J. M. (2012). 40,000 memories in young teenagers: Psychometric properties of the Autobiographical Memory Test in a UK cohort study. *Memory*, *20*(3), 300-320. doi:10.1080/09658211.2012.656846

Hughes, G. (2009). Talking to oneself: using autobiographical internal dialogue to critique

everyday and professional practice. *Reflective Practice*. doi 10.1080/14623940903138316

Koren-Karie, N., Oppenhiem, D., Carasso, A. E., & Haimovich, Z. (2003). *Autobiographical Emotional Events Dialogues: Coding Manual*. University of Haifa.

Kuyken, W., & Dalgleish, T. (1995). Autobiographical memory and depression. *British Journal of Clinical Psychology*, *34*, 89-92.

Larkina, M., & Bauer, P. J. (2010). The role of maternal verbal, affective, and behavioral support in preschool children's independent and collaborative autobiographical memory reports. Cognitive Development, 25(4), 309-324. doi:10.1016/j.cogdev.2010.08.008

Lievaart, M., Van Der Heiden, C., & Geraerts, E. (2013). Associations between Depressive Symptoms, Rumination, Overgeneral Autobiographical Memory and Interpretation Bias within a Clinically Depressed Sample. Psychology & Psychotherapy, 7. Retrieved from http://dx.doi.org/10.4172/2161-0487.S7-004

Liu, X., Li, L., Xiao, J., & Jiang, X. (2013). Abnormalities of autobiographical memory of patients with depressive disorders: a meta-analysis. Psychology and Psychotherapy, 86(4), 353-373.

Maurex, L., Lekander, M., Nilsonne, Å., Andersson, E. E., Åsberg, M., & Öhman, A. (2010). Social problem solving, autobiographical memory, trauma, and depression in women with borderline personality disorder and a history of suicide attempts. British Journal of Clinical Psychology, 49(3), 327-342. doi:10.1348/014466509X454831

O'Carroll, R. E., Dalgleish, T., Drummond, L. E., Dritschel, B., & Astell, A. (2006). Effects of age, dysphoria, and emotion−focusing on autobiographical memory specificity in children. *Cognition & Emotion*. doi:10.1080/02699930500341342

Park, R. J., Goodyer, I. M., & Teasdale, J. D. (2004). Effects of induced rumination and distraction on mood and overgeneral autobiographical memory in adolescent Major Depressive Disorder and controls. Journal of Child Psychology and Psychiatry, 45(5), 996-1006. doi: 10.1111/j.1469-7610.2004.t01-1-00291.x

Radloff, L. S. (1977). The CES-D ScaleA Self-Report Depression Scale for Research in the General

Population. Applied Psychological Measurement. doi:10.1177/014662167700100306

Rawal, A., & Rice, F. (2012). A longitudinal study of processes predicting the specificity of autobiographical memory in the adolescent offspring of depressed parents. Memory, 51(5), 518-527. doi:10.1080/09658211.2012.683011

Sumner, J. A., Griffith, J. W., & Mineka, S. (2010). Overgeneral autobiographical memory as a predictor of the course of depression: A meta-analysis. Behaviour Research and Therapy, 48(7), 614-625. doi:10.1016/j.brat.2010.03.013

Valentino, K. (2011). A developmental psychopathology model of overgeneral autobiographical memory. Developmental Review, 31(1), 32-54. doi:10.1016/j.dr.2011.05.001

Valentino, K., Nuttall, A., Comas, M., McDonnell, C., Piper, B., Thomas, T., & Fanuele, S. (2014). Mother–Child Reminiscing and Autobiographical Memory Specificity Among Preschool-Age Children. *Developmental Psychology*, *50*(4), 1197-1207.

Vreeswijk, M. F., & Wilde, E. J. (2004). Autobiographical memory specificity, psychopathology, depressed mood and the use of the Autobiographical Memory Test: a meta-analysis. Behaviour Research and Therapy, 42(6), 731-743. doi:10.1016/S0005-7967(03)00194-3

Vrielynck, N., Deplus, S., & Philippot, P. (2007). Overgeneral Autobiographical Memory and Depressive Disorder in Children. Journal of Clinical Child and Adolescent Psychology, 36(1), 95-105. doi:10.1080/15374410709336572

Wang, Q. (2004). The Emergence of Cultural Self-Constructs: Autobiographical Memory and Self-Description in European American and Chinese Children. *Developmental Psychology*, *40*(1), 3-15.

Williams, J. M., & Broadbent, K. (1986). Autobiographical Memory in Suicide Attempters. Journal of Abnormal Psychology, 95(2), 144-149. doi:10.1037/0021-843X.95.2.144

Williams, J. M., Ellis, N. C., Tyers, C., Healy, H., Rose, G., & Macleod, A. K. (1996). The specificity of autobiographical memory and imageability of the future. Memory & Cognition, 24(1), 116-125. doi:10.3758/BF03197278

Williams, J. M., & Dritschel, B. H. (1988). Emotional Disturbance and the Specificity of

Autobiographical Memory. *Cognition & Emotion*, *2*(3), 221-234. doi: 10.1080/02699938808410925

Williams J. M. G., & Dritschel B. H. (1992). Categoric and extended autobiographical memories. In

Williams, J. M., Barnhofer, T., Crane, C., Hermans, D., Raes, F., Watkins, E., & Dalgleish, T. (2007). Autobiographical Memory Specificity and Emotional Disorder. Psychological Bulletin, 133(1), 122-148. doi:10.1037/0033-2909.133.1.122